

AMENDMENTS TO THE CLAIMS

The following listing of claims will replace all prior versions and listings of claims in the application.

1.-16. (cancelled)

17. (original). A blow molding machine for producing a heat set container, said machine comprising:

a blow mold defining a mold cavity capable of receiving a preform;

a high-pressure gas source to supply a high-pressure gas;

a high-temperature gas source to supply a high-temperature gas;

a fluid source to supply a fluid;

a mixer coupled to said high-temperature gas source and to said fluid source to mix the high-temperature gas with the fluid;

a blow core assembly engagable with the preform and coupled to said high-pressure gas source, to said high-temperature gas source, and to said fluid source, said blow core assembly also having an exhaust; and

a controller coupled to said high-pressure gas source, to said high-temperature gas source, and to said fluid source, whereby said controller controls the providing of the high-pressure gas into the preform to blow mold the preform into a container, and controls the mixing of the fluid with the high-pressure gas into a mixture such that the heat transfer coefficient of the mixture is greater than the heat transfer coefficient of the high-temperature gas alone, and controls the providing of the mixture to

an interior portion of the container to induce crystallinity into the container, and controls the exhausting of the mixture through said exhaust.

18. (original) The blow molding machine of Claim 17 wherein said fluid source supplies fluid in a liquid state and at ambient temperature and pressure.

19. (original) The blow molding machine of Claim 17 wherein said fluid source supplies a fluid that includes water.

20. (original) The blow molding machine of Claim 17 wherein said mixer includes an atomizer.

21. (original) The blow molding machine of Claim 17 wherein said mixer includes a vaporizer.

22. (original) The blow molding machine of Claim 17 wherein said high-pressure gas source supplies a high-pressure gas at a pressure in the range of 100 psi to 600 psi.

23. (original) The blow molding machine of Claim 17 wherein said high-temperature gas source supplies a high-temperature gas at a temperature in the range of 200°C to 400°C.

24. (original) The blow molding machine of Claim 17 further comprising a low-temperature gas source to supply a low-temperature gas, and a second mixer coupled to said low-temperature gas source and to said fluid source to mix the low-temperature gas with the fluid, said controller further coupled to said low-temperature gas source, whereby said controller controls the mixing of the fluid with the low-temperature gas into a second mixture such that the heat transfer coefficient of the second mixture is greater than the heat transfer coefficient of the low-temperature gas alone, and controls

the providing of the second mixture to an interior portion of the container to cool the container.

25. (new) A blow molding machine for producing a heat set container, said machine comprising:

- a blow mold defining a mold cavity capable of receiving a preform;

- a high-pressure gas source to supply a high-pressure gas;

- a high-temperature gas source to supply a high-temperature gas;

- a fluid source to supply a fluid, said fluid in a liquid state and at ambient temperature and pressure;

- a mixer coupled to said high-temperature gas source and to said fluid source to mix the high-temperature gas with the fluid;

- a blow core assembly engagable with the preform and coupled to said high-pressure gas source, to said high-temperature gas source, and to said fluid source, said blow core assembly also having an exhaust; and

- a controller coupled to said high-pressure gas source, to said high-temperature gas source, and to said fluid source, whereby said controller controls the providing of the high-pressure gas into the preform to blow mold the preform into a container, and controls the mixing of the fluid with the high-pressure gas into a mixture such that the heat transfer coefficient of the mixture is greater than the heat transfer coefficient of the high-temperature gas alone, and controls the providing of the mixture to an interior portion of the container to induce crystallinity into the container, and controls the exhausting of the mixture through said exhaust.

26. (new) The blow molding machine of Claim 25 wherein said fluid source supplies a fluid that includes water.

27. (new) The blow molding machine of Claim 25 wherein said mixer includes an atomizer.

28. (new) The blow molding machine of Claim 25 wherein said mixer includes a vaporizer.

29. (new) The blow molding machine of Claim 25 wherein said high-pressure gas source supplies a high-pressure gas at a pressure in the range of 100psi to 600psi.

30. (new) The blow molding machine of Claim 25 wherein said high-temperature gas source supplies a high-temperature gas at a temperature in the range of 200°C to 400°C.

31. (new) The blow molding machine of Claim 25 further comprising a low-temperature gas source to supply a low-temperature gas, and a second mixer coupled to said low-temperature gas source and to said fluid source to mix the low-temperature gas with the fluid, said controller further coupled to said low-temperature gas source, whereby said controller controls the mixing of the fluid with the low-temperature gas into a second mixture such that the heat transfer coefficient of the second mixture is greater than the heat transfer coefficient of the low-temperature gas alone, and controls the providing of the second mixture to an interior portion of the container to cool the container.